

In the year 2001 there will be 16.3 per cent more post-secondary students in Canada than in 1974. If this increase were gradual and steady, educational institutions and government policy makers could fairly easily make provisions to adapt.

But, according to an educational statistician with Statistics Canada, the increase will be anything but "gradual and steady", and he predicts that enrolment patterns between now and the end of the 20th century will have a significant impact on the life of the post-secondary community.

In a paper presented to the Statistical Science Association of Canada, Zolten Zsigmond of the Education, Science and Culture Division of Statistics Canada, warns of "the potential hazards the future holds" if education planners fail to consider "demographic facts and their possible impact" on post-secondary enrolment.

What makes rational long-term planning so complicated, and so important, he argues, is the roller-coaster appearance of the line graph projecting enrolments over the period from now until the end of the century.

Whereas in 1974 there were 567 thousand post-secondary students in full-time attendance at colleges and universities across Canada, by 1982, according to Zsigmond's estimate, this figure will increase 18 per cent, to about 670 thousand.

This projection is based on the increase in the size of the 18-24 age group, from which 80 per cent of the post-secondary student population is drawn. Zsigmond assumes the participation rate - the proportion of that age group that attends post-secondary institutions - will remain at the current 20 per cent level until the end of the century.

As the 18-24 age group rises and falls, so will post-secondary enrolment, according to Zsigmond.

Which is why the enrolment situation will dramatically reverse itself after the 1982 high point. Those born during the "baby boom" years will already have passed through the 18-24 age group and the post-secondary system, and the size of the group will then begin to diminish in accordance with the decline in fertility rates evident since the 1960's.

Zsigmond predicts the low-point in enrolment will come around 1992, when roughly there will be 520 thousand students, 22 per cent less than 1982.

After 1992, says Zsigmond, demographic trends based on census data indicate that enrolment will once again start to increase to about 660 thousand, just slightly above the 1982 figure.

#### The Planning Problem:

The problem of planning for growth in the post-secondary sector is clear. For every 100 students that need teachers, classrooms, and other services in 1974, there will be 118 in 1992, only 82 in 1992, and 116 in 2001.

If planners attempt to target to accommodate all the students needing facilities in 1982, they will have excess capacity after that date until the 90's.

And if they opt to plan for no more students than will be around in the 1982-92 period, institutions will find themselves short of resources before and after that ten year period.

Zsigmond outlines some of the possible implications of demographic change and enrolment levels on the post-secondary sector.

One is that the enrolment fluctuations will not affect all programs equally. Those faculties in which enrolment is determined more by the availability of facilities than by the number of applications, such as medicine, dentistry, and other professional programs, will be less affected by demographic patterns than general programs.

"It is the general faculties, particularly arts and science, that are likely to feel the effects of the population decline," Zsigmond writes.

"First year admissions (in these programs) depends largely on the number of secondary school graduates there were the preceding spring. When the 18-24 year old age group starts to decrease, so will 'general' enrolment."

The attitudes and actions of administrators will also be effected, he



says. They will have to ask themselves "Is it reasonable to curtail current growth to cope with future decline? Should some programs be eliminated and academic staff reduced?"

And an important requirement Zsigmond says, will be "more effective and realistic budgeting" in the future, and replacement of the "usual single year planning currently imposed by governments on post-secondary institutions."

According to Zsigmond, those whose lives are apt to be most affected by the enrolment decline are teachers. If the current national student-teacher ratio of 12:1 persists to the peak enrolment year, 1982, about 8,400 more teachers will be needed. But should this number of teachers be sustained the ratio will have fallen to 9.3:1 by 1992.

Unless the ratio is lowered an enrolment declines, by the early 1990's there will be about 12,500 "surplus" teachers - 26 percent of the present total full-time post-secondary teaching staff. And most of these will be in the general faculties.

Although the most economical solution to the problem from the administrators perspective is to cut back on teachers and courses, Zsigmond says teachers and their associations would likely become more militant as their security is threatened.

"The years ahead are apt to be more marked by vigorous bargaining over salaries, tenure and class loads," he predicts.

Zsigmond is skeptical that the enrolment decline he sees for the 1982-92 period will result in decreased costs in terms of the system as a whole. Education, he feels, manages to make use of any increased resources and operating costs are unlikely to drop proportionate to enrolment.

He cites the inflexibility of fixed costs, tenure, faculty unionization and programs as reasons. Capital costs, however, are predicted to slow down "if authorities plan ahead."

But even if the institutions themselves find it difficult to reduce expenditures, Zsigmond feels that government - which pays 80 per cent of the post-secondary bill - might have cause of their own to become more active in reducing expenditures in this sector.

Again arguing from demographic trends, Zsigmond points out that, as the size of Canada's 18-24 year old group declines, the number of persons 65 years and older is on the increase.

"This means greater expenditures

on hospitals, medicare, pensions, and senior citizens housing" and, he suggests, a decline possible in the post-secondary sector as a government spending priority for reasons aside from the decline in enrolment.

#### Enrolment Projections: So What?

What all this means to the current crop of post-secondary students, and those to come along in the future, depends on the decision reached by educational planners as to how to accommodate future trends, a subject for speculation.

Based on past decision, the surest bet would seem to be that government will not pump in sufficient funds to provide the resources needed to handle the increasing enrolments forecast until 1982.

To do so would mean "excess capacity" after 1982. Less resources, crowded facilities, and increased class-sizes (or more "term" contracts for faculty) would seem to be a more orthodox government response.

A deteriorating quality of education will result when an increasing number of students are provided with a constant level of educational resources. This is not the only result to be expected.

Student housing conditions, for instance, will likely worsen. What institution would build student residences to meet the 1982 enrolment level, knowing full well they will not have the students needed later on to pay off the mortgage?

Another result of increased enrolment is that the number of graduates will also increase until the mid 1980's, meaning the already reduced value of the degree in the marketplace will continue to decrease.

And those students who contemplate careers in academia had better perish the thought, or start shoving tenured faculty aside in preparation for that day in 1982 when the student-as-commodity begins to grow scarce.

This predicted deterioration in the quality of education and the reduction in its market value, it should be remembered, is occurring at the same time as federal and provincial governments are demanding that students borrow more money to pay for it. So student loan repayment will become an increasing burden, and the default rate is likely to increase.

Those students who come later will not be in such a bad predicament. As the cost-per-student increases they will need rich parents or bigger loans. But the product they buy should improve in quality.

The reduced student-teacher ratio, the many years of teaching experience of

## Coming to terms

The long and the short of the university of the future.

those tenured faculty who remain, and the wide-open spaces in classrooms and cafeterias could provide an enjoyable learning environment, even if it is a little less than dynamic.

And as they graduate in ever decreasing numbers, they will find that graduates have once again become somewhat scarce on the job market, and are able not only to get jobs, but to command high incomes.

#### Political Implications and Options

The situation described above for students in the 80's does sound somewhat reminiscent of the "good old days" before the expansionary upheavels of the 60's and 70's, when post-secondary education was a comfortable preserve for the comfortable few.

However, after 10 years, in 1992, the demographers show that once again the 18-24 age group will be increasing in numbers and pressing for entrance to the post-secondary system.

Are they likely to be let in? Will post-secondary education again see enrolment increase? Or will government policy see to it that the "participation rate" is lowered so as to avoid another round of expansion?

The question is political rather than demographic because to say the university age group will increase is not to say that enrolment itself will increase. Student aid policies and academic admission standards are just two of the devices that can be used to determine actual enrolment levels.

Admission standards are a good example. In Ontario, for instance, the great hue and cry about the allegedly low academic qualifications of students being admitted to colleges and universities did not gain momentum until the government had shut off the financial tap.

All that is really indicated by the now-popular appeal for increased admission standards is that the system feels there are too many students, given current resources. "Raise the standards" simply means "eliminate students".

Will such devices be employed to reduce the participation rate when the 18-24's start increasing in number again in 1992?

Government policy will decide. Government may listen to those who will argue that the failure of our economy to absorb the post-secondary trained manpower of the 60's and 70's means we can not afford another attempt at "mass" post-secondary education, and urge that the "cooling off" of the system as a result of demographic trends in the 80's be continued by deliberate policy into the 90's.

And others will argue that the failure of our economy to provide jobs for graduates was just that - an economic failure, not the failure of the education system. They will urge government to maintain and increase the participation rate, so as to make post-secondary education "universally accessible."

In any case, the winning side will be those with the strongest political base, who may or may not be those with the best arguments. They will determine the future of post-secondary education of Canada.

*"The years ahead are apt to be more marked by vigorous bargaining over salaries, tenure and class loads."*

by Peter O'Malley  
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